

Amendments to the Claims

1. (Currently Amended) A method of operating a mobile communication device that is operable to communicate on an over-the-air communication link, comprising the steps of:

transmitting over-the-air that a virtual bearer mode of operation is supported;

receiving a response associated with the virtual bearer mode of operation for the communication link; and

selectively operating in a virtual bearer mode depending upon the response, wherein in the virtual bearer mode the virtual bearer being operable to provide flow control within the communication device, the virtual bearer flow control to store data when the communication link is not interrupted and to provide the stored data when the communication link is interrupted.

2. (Currently Amended) The method according to claim 1, wherein the mobile device includes a first controller maintaining the integrity of the radio link and a second controller converting between over-the-air and internal forms, and wherein said step of selectively operating includes communicating between the first controller and the second controller via a-the virtual bearer in the virtual bearer mode and communicating between the first controller and the second controller independently of the without virtual bearer flow control in a transparent mode when the virtual bearer mode is not selected.

3. (Previously Amended) The method according to claim 1, wherein the virtual bearer mode is initiated in response to a response indicating a streaming bearer will be established.

4. (Currently Amended) A mobile communication device, comprising:
a radio link controller-coupled to lower layers;
a virtual bearer coupled to the radio link controller and including a buffer storing
at least one logical link controller frame of a communication signal; and

a logical link controller coupled to the virtual bearer, the virtual bearer to receive for receiving logical link controller frames from the logical link controller virtual bearer;

wherein the virtual bearer is selectively operative to apply flow control to the lower layers in order to maintain a predetermined queue state target, the virtual bearer operable to store data when a communication link is not interrupted and to provide the stored data when the communication link is interrupted.

5. (Currently Amended) A mobile communication device, comprising:

a radio link controller coupled to lower layers;

a virtual bearer coupled to the radio link controller and including a buffer storing at least one logical link controller frame of a communication signal; and

a logical link controller coupled to the virtual bearer, the logical link controller to receive for receiving logical link controller frames therefrom from the virtual bearer;

wherein the virtual bearer is operative to selectively apply flow control to the lower layers and is responsive to a determination that a cell change is imminent, whereby the virtual bearer being operable to store data when it is determined that a cell change is imminent and to provide the stored data when data flow is interrupted for the cell change.

6. (Currently Amended) The mobile communication device as defined in claim 5, wherein the determination that a cell change is imminent is received from a network.

7. (Currently Amended) The mobile communication device as defined in claim 5, wherein the determination that a cell change is imminent is made by the mobile communication device.

8. (Currently Amended) The mobile communication device as defined in claim 7, wherein the determination that a cell change is imminent is made by a controller using a predictive algorithm.

9. (Currently Amended) A method of operating a communication system including a network element, comprising the steps of:

determining in the network element that a virtual bearer flow control is required on the downlink for a receiving device; and

transmitting the virtual bearer type for receipt by the receiving device; and
transmitting a signal accommodating virtual bearer flow control by the receiving device, wherein the signal is selectively over-dimensioned to support virtual bearer flow control in a receiving device virtual bearer operable to store data when the communication link is not interrupted and output the stored data when the communication link is interrupted.

10. (Currently Amended) The method of claim 9, wherein the step of transmitting the virtual bearer type includes transmitting an indication of a streaming bearer type for streaming data.

11. (Currently Amended) The method of claim 9, wherein the step of transmitting the virtual bearer type includes transmitting an indication of background bearer type for background data transmission.

12. (Currently Amended) The method of claim 9, wherein the step of transmitting the virtual bearer type includes transmitting an indication of no virtual bearer flow control for interactive data.

13. (Currently Amended) The method of claim 10, wherein the step of transmitting the signal includes over-dimensioning the transmitted signal to accommodate virtual bearer flow control within the receiving device further including the step of over-dimensioning the downlink signal to accommodate cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

14. (Currently Amended) A method of operating a communication system including a network element, comprising the steps of:

determining that a virtual bearer is required on a downlink transmission to a mobile communication device; and

over-dimensioning the downlink signal to the mobile communication device to accommodate flow control in the communication device during a cell change by the mobile communication device during a virtual bearer mode of operation, wherein the signal is selectively over-dimensioned depending upon the virtual bearer type to support virtual bearer flow control wherein the virtual bearer is operable to store data when the communication link is not interrupted and output the stored data when the communication link is interrupted.

15. (Currently Amended) The method of claim 14, further including the step of not over-dimensioning the downlink signal to accommodate a cell change by the mobile communication device during a background bearer type of virtual bearer mode operation.

16. (Currently Amended) A method of operating a mobile communication device, comprising:

storing at least one frame of a communication signal received at a first data rate from a network; and

applying flow control to the lower layers in a virtual bearer responsive to a determination that a cell change is imminent, whereby the virtual bearer being operable to store received signal information and output the frame at a second data rate slower than the first data rate when it is determined that a cell change is imminent and the virtual bearer operable to provide the stored data when receipt of the communication signal is interrupted for the cell change.

17. (Currently Amended) A method of operating a mobile communication device on a network, comprising the steps of:

determining if a virtual bearer mode is supported by a network;

receiving from a lower layer a downlink streaming signal at a first data rate at least when the virtual bearer mode is supported and active; and

outputting data by the virtual bearer, the virtual bearer storing the received signal and outputting the signal at a second rate slower than the first data rate during at least a portion of the transmission when the virtual bearer mode is supported and active to provide flow control within the mobile communication device, and the virtual bearer outputting the stored signal when the downlink signal is interrupted.

18. (New) The method of claim 13, wherein said over-dimensioning the transmitted signal is responsive to a determination that cell change is imminent for the communication device during a virtual bearer mode of operation.

19. (New) The method of claim 18, wherein the determination that a cell change is imminent is received from a network.

20. (New) The method of claim 18, wherein the determination that a cell change is imminent is made by the mobile communication device.